

ABSTRACT

It is very difficult to produce a negative wall angle from either negative or positive-tone chemically amplified resists, especially by e-beam lithography. This problem has now been overcome by first forming a photoresist pedestal in the conventional way, followed by flood exposing with electrons. Then, a second development treatment is given. This results in removal of additional material from the sidewalls, said removal being greatest at the substrate and least at the pedestal's top surface, resulting in negatively sloping sidewalls. Application of this method to a process for forming a pole tip for a vertical magnetic writer is also discussed.